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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,354	08/22/2003	Daniel Studer	115-031628	8605

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EXAMINER

PETERSON, KENNETH E

ART UNIT	PAPER NUMBER
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3724

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/646,354

Applicant(s)

STUDER, DANIEL

Examiner

Kenneth E. Peterson

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 5-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 13 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/207,284.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 19mar04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

1. Applicant's election with traverse of group I, Species B in the reply filed on 15 Sep 05 is acknowledged. The traversal is on the ground(s) that a search for one group involves a search for all groups. This is found to be partially persuasive because the search for group I did indeed require searching for all of the other claims that involved the blade or blade motion. Claims 3,13 and 14 will be rejoined to elected group I (claim 2) and will be examined along with linking claim 1 and non-grouped claim 4.

Claims 5-12, drawn to the vibration of the probe, is a separate inventive concept that would need to be searched elsewhere, such as in class 318, subs 119+ and 310, subs 15+.

The requirement, as modified above, is still deemed proper and is therefore made FINAL.

2. The information disclosure statement filed 19 March 04 partially fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been mostly considered, but the references lined thru have not been considered.

3. The abstract of the disclosure is objected to because of the inclusion of legal phraseology, such as "said". Correction is required. See MPEP § 608.01(b).

4. Claims 1-4,13 and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The first paragraph of page 4 of the specification describes moving the blade relative to the probe in a second direction, which is perpendicular to the cutting edge. Examiner can find no structural description or drawings showing how this is done. According to the rest of the specification and drawings, the blade is motionless in the second direction. Is this just a backwards way of saying that the probe moves in the second direction? The language of claim 1 and 14 in particular have this problem.

5. Claims 1-4,13 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not clear what weight to give the recitation of the blade moving in the second direction, since it does not appear to be capable of such movement.

In regards to claim 14, there is no disclosure of the blade moving in the second direction at a constant speed. Since the claims are read in light of the spec, Examiner is not sure how to interpret this. Even if it were moving in the second direction, how could it be constant? There would need to acceleration and deceleration.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1,4 and 14, as partially understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Persidsky et al.'913, who shows a tool having all the recited limitations including a blade block (17) with lateral vibration along the cutting edge (the "first direction"), as seen in figure 5. Since the vibration is about two spaced arms (4,4'), there is a small component of motion in the direction perpendicular to the cutting edge (the "second direction").

The thickness of the cut sample is adjustable by knob 43. Since knob 43 controls the thickness in an analog manner, it can be set at any setting, including between 10nm and 100nm. Thus, this device can be considered an ultramicrotome (probably not a very good ultramicrotome, but an ultramicrotome nonetheless). Note that Examiner has not rejected claim 2 here. While Persidsky is capable of cutting at the 10-100nm range, it does not disclose cutting at the 10-100nm range.

The motion of the blade in the second direction is substantially constant at near zero.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-4, 13 and 14, as partially understood, are rejected under 35 U.S.C.

103(a) as being unpatentable over Goodman '326 in view of Persidsky et al.'913.

Goodman shows an ultramicrotome with a diamond blade (line 65, column 1) that cuts at thicknesses between 10nm and 100nm (line 31, column 1).

Goodman's blade does not vibrate in the manner claimed. However, Persidsky shows that it is old and well known for microtome blades to vibrate in this manner, as discussed above. It would have been obvious to one of ordinary skill in the art to have modified Goodman by adding the vibrating feature of Persidsky to his blade block, in order to increase the knife's penetrating power (lines 57-58, column 1).

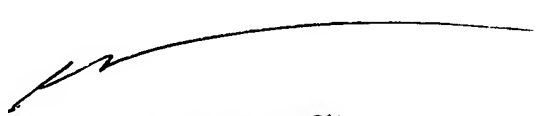
Neither reference discloses the amplitude of the vibration. However, given the conditions of Goodman, it would have been obvious to experiment with a variety of amplitudes to arrive at an acceptable one, such as about 1 μ m. The courts have long ruled that such experimentation is obvious. See In re Aller, 105 USPQ 233.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken Peterson whose telephone number is 571-272-4512. The examiner can normally be reached Mon-Thurs, 7:30AM-5PM

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 571-272-4514. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KP
November 17, 2005



KENNETH E. PETERSON
PRIMARY EXAMINER